

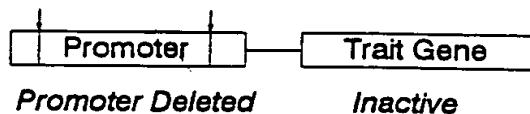
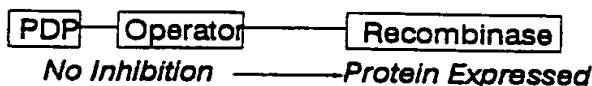


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(54) Title: IMPROVED PLANT GERMPLASM

Chemical Inducer Absent
- Plant Development Disrupted



(57) Abstract

PDP=PLANT DEVELOPMENT PROMOTER

A recombinant plant genome contains a gene cascade such that it is incapable of producing a mature plant but requires the presence of a chemical inducer. The gene cascade includes a gene switch which is inducible by external application of a chemical inducer and which controls expression of a gene product which affects expression of a second gene in the genome. Survival or development of the plant is dependant upon either expression or non-expression of the second gene and application of the inducer, therefore, selects whether or not the plant develops. In one example the second gene encodes a cytotoxic molecule and expression of that gene is fatal to the plant. In another example the second gene encodes a desirable characteristic which may be excised selectively by applying or withholding chemical application. The second gene may be placed under control of a development regulated promoter.

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